DOCUMENT RESUME

ED 167 501 **SP 013 684**

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TITLE The Effect of Administrative Procedure on Student Assessment of Collegiate Physical Education Activity Courses.
PUB DATE 78
NOTE 20p.; For related document, see ED 151 307.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Behavior Rating Scales; *College Faculty; Comparative Testing; Effective Teaching; *Evaluation Methods; Faculty Evaluation; Informal Assessment; *Student Evaluation of Teacher Performance; *Teaching Assistants

ABSTRACT

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ED167501

The Effect of Administrative Procedure on Student Assessment of Collegiate Physical Education Activity Courses

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ABSTRACT

This study compared the effects of "instructor administered" versus "administrator administered" rating forms on student assessment of instruction given by faculty and graduate assistants. Twelve physical education instructors who taught "paired" sections, that is, two sections of the same activity course, were studied. Each of the instructors administered the Instructional Assessement Inventory in one of his/her two paired sections. In the other section of each of the pairs, the inventory was given by either the department chairman or the associate dean, but in the absence of the instructor. Significant and differential administrative effects were evident. On four of the twenty inventory items and one of the major inventory sections, when "administrator administered," the graduate assistants were rated significantly lower and faculty received significantly higher appraisals.

INTRODUCTION

Student ratings of college and university courses have been extensively employed as a source of objective data on teaching and course effectiveness. Administrators, as well as faculty, charged with the responsibility for recommending faculty reappointment, tenure, promotion and salary have relied, almost exclusively, on student evaluations to substantiate good instruction. Likewise, faculty tend to submit student ratings as supportive evidence of their own teaching effectiveness.

Because student ratings play a prominent role in the overall assessment of instruction, it is desirable to study various factors that might influence assessment scores. One factor associated with biased scores is the amount of faculty influence when administering the rating instrument. Sheehan (1975) warns that faculty administration of rating scales could positively influence student ratings, while Doyle (1975) suggests that an instructor's absence from the classroom during the evaluation process might result in a more representative assessment. Fentress (1973) studied the effects of deliberate influential tactics on student ratings of teaching assistants in Industrial Education and Technology. Three different treatments were used. In the first treatment, no instructor influential tactics were given; in the second, the instructor used subtle verbal reinforcement and praise; and in the third, the instructor provided outright reinforcement in the form of potato chips, pretzels and soft drinks. The findings indicated that subtle reinforecment and overt reinforcement by the instructor caused significantly higher student

appraisals. Because evidence indicates that instructors can influence higher ratings, Fentress (1973) cautioned against the indiscriminate use of the results of faculty administered ratings for administrative purposes.

The study reported herein is an outgrowth of a previous study (Bos and Zakrajsek, 1978) which revealed very high student appraisals of instructors in college physical education activity courses. One factor suggested in that study as possibly contributing to the high scores was that the rating instrument was faculty administered, thereby implying that instructor presence caused a less discriminate student attitude, which in turn, produced higher evaluations. Greater student discrimination and thus lower ratings might be evidenced if the assessing instrument was administered by an administrator. Therefore, the purpose of this study was to compare the effects of "instructor administered" versus "administrator administered" rating forms on student assessment of instruction given by faculty and graduate assistants.

METHODOLOGY

Instructional Assessment Inventory

The Instructional Assessment Inventory, Table 9 in the Appendix, was the evaluation instrument utilized in this study. This instrument is comprised of twenty individual items arranged in four sections: (1) "Knowledge, Clarity and Enthusiasm," (2) "Organization and Preparation," (3) "Student Interaction and Rapport," and (4) "General

Evaluation." For each item of the inventory, one of five possible responses (A through E) was selected by the respondent. Each response was, subsequently, quantified as a score of 1 through 5, 1 indicating the least favorable response and 5 the most favorable response.

Subjects

Twelve physical education instructors who taught "paired" sections, that is, two sections of the same activity course, were included in this study. The teaching group was comprised of six regular faculty and six graduate assistants. The student assessing sample, as shown in Table 1, numbered 460.

TABLE 1
PROFILE OF SAMPLE

TOTAL NUMBER OF INVENTORIES COMPLETED	460
A. FACULTY TAUGHT	188
1. FACULTY ADMINISTERED	103
2. ADMINISTRATOR ADMINISTERED	85
B. GRADUATE ASSISTANT TAUGHT	272
1. GRADUATE ASSISTANT ADMINISTERED	146
2. ADMINISTRATOR ADMINISTERED	126

Furthermore, the sample represented instruction in ten different activities which are listed in Table 2.

Each of the twelve instructors administered the Instructional Assessment Inventory to students in one of his/her two paired sections. The instructors conducted the evaluations according to their usual

procedure of distributing the forms and then designating a student to collect the completed forms and forward them to the departmental office. In the other section of each of the twelve pairs, the inventory was given by either the department chairman or the associate dean, but in the absence of the instructor. In these "administrator administered" sections, the administrator conveyed the following information to each class prior to dispensing the rating forms:

1. Introduced self and administrative position.
2. Informed the students of activity program enrollments and the importance of activity classes in the total physical education program.
3. Reminded students of the need for evaluative feedback concerning instructor and course effectiveness.
4. Assured students of the anonymity of their responses.

TABLE 2

ACTIVITIES EVALUATED BY INSTRUCTIONAL ASSESSMENT INVENTORY

ARCHERY	FOLK DANCE
BADMINTON	GYMNASTICS
BALLET	MODERN DANCE
BASKETBALL	RACQUETBALL
BILLIARDS	VOLLEYBALL

After the rating forms were completed, the administrator collected the forms and left the testing area, whereupon the instructor made his/her first appearance of the day before the class. All rating forms were administered during the final examination week of Winter Quarter, 1978. Each student completed the inventory prior to taking the final written examination. In six of the twelve pairs of sections, the "instructor administered" inventory was given first, and in the other six, the "administrator administered" inventory was given first.

Statistical Analysis

For each student in the sample, the scores of the individual items were summed for each of the four sections of the Instructional Assessment Inventory and summed for all twenty items. Group means were then calculated and are reported for these sums of the sections and likewise for the sums of all items.

A 2 x 2 ANOVA was utilized to further analyze the results of this study. The .05 level was selected as the level of significance. The two independent variables in this ANOVA were instructor groups (faculty and graduate assistants) and administrative procedure (instructor administered and administrator administered).

RESULTS

As previously mentioned, the problem undertaken in this study was to determine the effect of selected administrative procedures on student ratings of instruction.

Table 3 embodies one major segment of the results of this study.

This table shows, in particular, that the twenty-item mean ($\bar{X}$ = 86.3) for graduate assistants and faculty combined, when "instructor administered," was not significantly different from the corresponding mean ($\bar{X}$ = 85.9) for "administrator administered" ratings. That is, overall, no significant effect was evidenced due to administrative procedure.

TABLE 3

GROUP MEANS FOR COMPOSITE OF ALL TWENTY INVENTORY ITEMS

	INSTRUCTOR ADMINISTERED	ADMINISTRATOR ADMINISTERED	COMBINED INSTRUCTOR-ADMINISTRATION ADMINISTERED
GRADUATE ASSISTANTS	86.8	84.9	85.9
FACULTY	85.5	87.5	86.4
COMBINED G.A.- FACULTY	86.3	85.9	

NOTE: ANOVA indicates differences between means are not significant.

Much the same result is delineated in Tables 4, 5 and 6. The ANOVA's for inventory sections I, II, and IV presented virtually the same picture as described in the aforementioned Table 3. For each of these sections, "instructor administered" ratings were not significantly different from the "administrator administered" ratings, considering faculty and graduate assistants combined as a single instructional group.

Table 7 and Figure 1 typify the second major segment of the findings in this study. Although the ANOVA indicated that "instructor administered" ratings ($\bar{X}$ = 16.8) of section III were not significantly different from the "administrator administered" ratings ($\bar{X}$ = 16.6), the

TABLE 4

GROUP MEANS FOR SECTION I
"KNOWLEDGE, CLARITY & ENTHUSIASM"

	INSTRUCTOR ADMINISTERED	ADMINISTRATOR ADMINISTERED	COMBINED INSTRUCTOR-ADMINISTRATOR ADMINISTERED
GRADUATE ASSISTANTS	30.8	29.7	30.2
FACULTY	30.5	30.9	30.7
COMBINED G.A. - FACULTY	30.5	30.2	

NOTE: ANOVA indicates differences between means are not significant.

TABLE 5

GROUP MEANS FOR SECTION II
"ORGANIZATION & PREPARATION"

	INSTRUCTOR ADMINISTERED	ADMINISTRATOR ADMINISTERED	COMBINED INSTRUCTOR-ADMINISTRATOR ADMINISTERED
GRADUATE ASSISTANTS	21.2	20.8	21.0
FACULTY	20.8	21.2	21.0
COMBINED G.A.- FACULTY	21.0	21.0	

NOTE: ANOVA indicates differences between means are not significant.

analysis did indicate significant interaction of the independent variables: instructor groups and administrative procedures. This interaction signified an administrative effect that was as surprising as it was interesting.

It appears that the effect of an administrator administering

TABLE 6

GROUP MEANS FOR SECTION IV "GENERAL EVALUATION"

	INSTRUCTOR ADMINISTERED	ADMINISTRATOR ADMINISTERED	COMBINED INSTRUCTOR-ADMINISTRATOR ADMINISTERED
GRADUATE ASSISTANTS	17.9	17.9	17.9
FACULTY	18.1	18.4	18.2
COMBINED G.A.-FACULTY	18.0	18.1	

NOTE: ANOVA indicates differences between means are not significant.

TABLE 7

GROUP MEANS FOR SECTION III "STUDENT INTERACTION & RAPPORT"

	INSTRUCTOR ADMINISTERED	ADMINISTRATOR ADMINISTERED	COMBINED INSTRUCTOR-ADMINISTRATOR ADMINISTERED
GRADUATE ASSISTANTS	17.0	16.3	16.7
FACULTY	16.5	17.1	16.8
COMBINED G.A.-FACULTY	16.8	16.6	

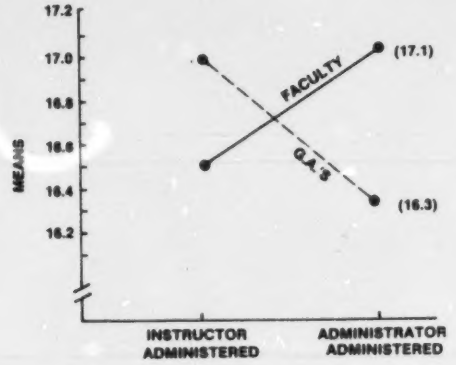
NOTE: ANOVA indicates differences between means for graduate assistants vs. faculty, and between "instructor administered" vs. "administrator administered" evaluations were not significant; however, a significant interaction ($F = 4.55$, $p = .03$) was present.

the Instructional Assessment Inventory was to enhance student appraisal of faculty teaching performance. In contrast, the effect upon graduate assistant taught classes was to diminish the instructional ratings by students. In other words, in this case, a statistically significant interaction indicated a significant administrative effect, but an effect which was different for

FIGURE 1

INTERACTION OF INDEPENDENT VARIABLES

SECTION III - "STUDENT INTERACTION A RAPPORT"



NOTE: Significant interaction of independent variables implies, at least, the largest difference between means, 17.1 - 16.3, is significant.

graduate assistants as compared to faculty.

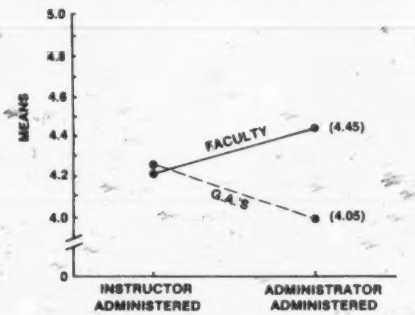
The aforementioned administrative effect has been presented in Figure 1. The mean rating of faculty increased from 16.5 when "instructor administered" to 17.1 when "administrator administered." In contrast, the mean rating of graduate assistants decreased from 17.0 when "instructor administered" to 16.3 when "administrator administered."

The significant interaction of independent variables ($F = 4.55$, $p \leq .03$) indicated, that at least the largest difference between means, in this case the difference between means of faculty and graduate assistant ratings when "administrator administered" was significant, and thus, that a significant administrative effect was present.

If this administrative effect, just described, were present in

a single instance, it would have been dismissed without comment. However, Figures 2 through 5 also show a similar administrative effect. In each case the administrator's presence caused a lower mean rating of graduate assistants and a relatively higher mean associated with faculty ratings.

FIGURE 2
INTERACTION OF INDEPENDENT VARIABLES
ITEM 2 - "THE INSTRUCTOR EFFECTIVELY EXPLAINED OR DEMONSTRATED THE SKILLS OF THE ACTIVITY."



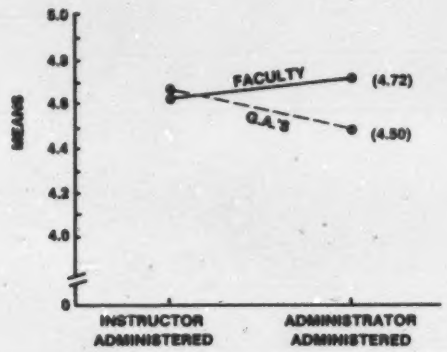
NOTE: ANOVA indicates significant interaction of independent variables ($F = 8.95$, $p = .008$), implying, at least the largest difference between means, 4.45 - 4.05, is significant.

Not only was this administrative effect significant in the aforementioned analyses, but also we find an "indication," albeit non-significant, of this effect in the ANOVA of other key areas. The analysis for the entire inventory, i.e., the means for the sums of all twenty items shows a similar decrease (86.8 vs. 84.9) in graduate assistant evaluations when "administrator administered" and a contrasting increase in means (85.5 vs. 87.5) in faculty evaluations when similarly administered. However, the probability ($p \leq .06$) could not be judged significant, thus the label "indication." The

FIGURE 3

INTERACTION OF INDEPENDENT VARIABLES

ITEM 5 - "THE INSTRUCTOR DEMONSTRATED A COMPREHENSIVE KNOWLEDGE OF THE ACTIVITY."

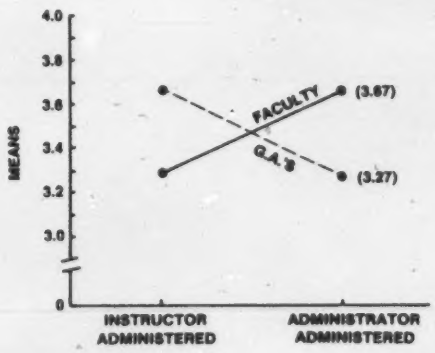


NOTE: ANOVA indicates significant interaction of independent variables ($F = 4.2$, $p = .04$), implying, at least the largest difference between means, 4.72 - 4.50, is significant.

FIGURE 4

INTERACTION OF INDEPENDENT VARIABLES

ITEM 11 - "THE TEXTBOOK AND OTHER INSTRUCTIONAL MATERIALS WERE OF VALUE IN THE COURSE."



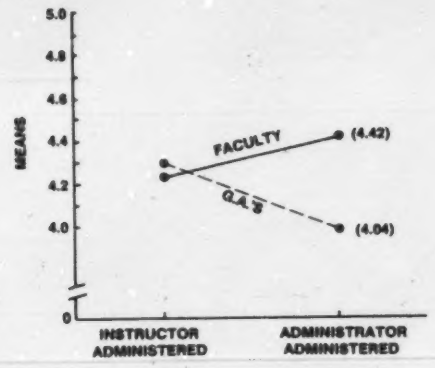
NOTE: ANOVA indicates significant interaction of independent variables ($F = 12.12$, $p = .001$), implying, at least the largest difference between means, 3.67 - 3.27, is significant.

same "indication" ($p \leq .07$) is present in the analysis of section I - "Knowledge, Clarity and Enthusiasm" and, likewise ($p \leq .10$) section II - "Organization and Preparation."

FIGURE 5

INTERACTION OF INDEPENDENT VARIABLES

ITEM 16 - "THE INSTRUCTOR WAS UNDERSTANDING OF AND HELPFUL TO STUDENTS WHO EXPERIENCED DIFFICULTY ACQUIRING THE ACTIVITY SKILLS."



NOTE: ANOVA indicates significant interaction of independent variables ($F = 7.1$, $p = .008$), implying, at least the largest difference between means, 4.42 - 4.04, is significant.

In summary, significant and differential administrative effects were evident in four of the individual inventory items, and one of the major sections. In addition, the same tendency was observed in two other major sections and with all items, in other words, all sections combined. It seems as though these effects were present too frequently not to have real meaning. College students, in this particular study, do appear to evaluate faculty and graduate assistants somewhat differently in the presence of an administrator.

DISCUSSION

For combined faculty and graduate assistant taught classes, no significant administrative effect on student ratings was evidenced. In other words, the composite mean for all twenty items in the inventory for "instructor administered" ratings did not significantly differ from the corresponding mean for the "administrator administered" ratings.

However, when viewing the two instructor groups separately there were administrative effects, although opposite in direction. On a number of individual inventory items and one of the major sections, when "administrator administered," the graduate assistants were rated significantly lower and faculty received significantly higher appraisals.

Assuming a homogeneous student population, one can only, at best, speculate about the reason for this administrative effect. Perhaps the results reflect a student bias which favors faculty taught classes over graduate assistant taught classes. Another student bias might be attributed to a closer identity with faculty, and, therefore, a need to protect them from the administrator who represents the decision making power of the university.

Although not reported in the "Results" herein, the results did also indicate that faculty as a teaching group are viewed to be more effective than graduate assistants. This somewhat confirms the findings of the aforementioned study (Bos & Zakrajsek, 1978) which concluded that faculty are perceived to be more effective than graduate assistants by students enrolled in physical education activity courses. That same study reported significantly higher appraisals for faculty on items 6, 7, 8, 10, 11, 13 and 20. No items in that study were found to be rated statistically higher for graduate assistants.

In this study, items 1, 2, 7 and 16 significantly favored the faculty and two other items, 18 and 20, approximated the .05 level of significance. Again, graduate assistants were not rated significantly higher on any item. The authors believe that these findings

support the conclusion of the earlier study, that faculty taught physical education activity courses are viewed by students to be more effective than when taught by graduate assistants.

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Appendix

TABLE 8

FOUR SECTIONS OF INSTRUCTIONAL ASSESSMENT INVENTORY

I. Knowledge - Clarity - Enthusiasm

II. Organization and Preparation

III. Instructor - Student Interaction and Rapport

IV. General Evaluation

TABLE 9

INSTRUCTIONAL ASSESSMENT INVENTORY

SECTION I - "KNOWLEDGE—CLARITY—ENTHUSIASM"

1. The instructor effectively explained or demonstrated the skills of the activity.
   INEFFECTIVE A____ B ____ C ____ D ____ E VERY EFFECTIVE
2. The instructor was perceptive in diagnosing and skillful in correcting individual errors in performance.
   OBLIVIOUS/NOT HELPFUL A____ B ____ C ____ D ____ E PERCEPTIVE/HELPFUL
3. The instructor clearly explained the rules, scoring and strategies involved in the activity. (May not apply to dance, gymnastics, skating, etc.)
   VAGUELY A____ B ____ C ____ D ____ E CLEARLY
4. The instructor was enthusiastic and interested in teaching the subject matter.
   APATHETIC A____ B ____ C ____ D ____ E ENTHUSIASTIC
5. The instructor demonstrated a comprehensive knowledge of the activity.
   UNINFORMED A____ B ____ C ____ D ____ E VERY KNOWLEDGEABLE
6. The instructor encouraged and motivated you to attain a higher skill level.
   UNCONCERNED A____ B ____ C ____ D ____ E VERY PERSUASIVE
7. The instructor seemed capable of teaching the more highly skilled performers.
   INCAPABLE A____ B ____ C ____ D ____ E VERY CAPABLE

SECTION II - "ORGANIZATION AND PREPARATION"

8. The instructor provided, verbally or via a course outline, the course objectives, expectations, assignments, examination information, and grading procedures.
   UNDEFINED A____ B ____ C ____ D ____ E CLEARLY DEFINED
9. The instructor's lessons reflected planned learning sessions and efficient utilization of class time.
   DISORGANIZED A____ B ____ C ____ D ____ E WELL PLANNED
10. Within the limitations of the facilities, the instructor provided maximal active participation time for all students.
    INACTIVE A____ B ____ C ____ D ____ E VERY ACTIVE
11. The textbook and other instructional materials were of value in the course.
    NO BENEFIT A____ B ____ C ____ D ____ E VERY VALUABLE
12. A safe learning environment was provided for the class.
    HARMFUL A____ B ____ C ____ D ____ E VERY SAFE

SECTION III - "INSTRUCTOR-STUDENT INTERACTION & RAPPORT"

13. The instructor provided evaluative feedback concerning your skill development.
    UNINFORMATIVE A____ B ____ C ____ D ____ E INFORMATIVE
14. The instructor was impartial and fair in dealing with students.
    UNFAIR A____ B ____ C ____ D ____ E VERY FAIR
15. The instructor was interested in you and your skill development.
    DISINTERESTED A____ B ____ C ____ D ____ E VERY INTERESTED
16. The instructor was understanding of and helpful to students who experienced difficulty acquiring the activity skills.
    NO HELP A____ B ____ C ____ D ____ E VERY HELPFUL

SECTION IV - "GENERAL EVALUATION"

17. Fun and enjoyment were experienced throughout the course.
    BORING A____ B ____ C ____ D ____ E VERY ENJOYABLE
18. Based on your experience in this course, would you enroll in another physical education course and/or recommend activity courses to others?
    ABSOLUTELY NOT A____ B ____ C ____ D ____ E DEFINITELY
19. Considering all aspects of the course, how would you rate this course?
    POOR A____ B ____ C ____ D ____ E EXCELLENT
20. Considering all of the instructional aspects of this course, how would you rate the instructor?
    POOR A____ B ____ C ____ D ____ E EXCELLENT